DATA SHEETS.

Only data not available in engineers' handbooks desired.

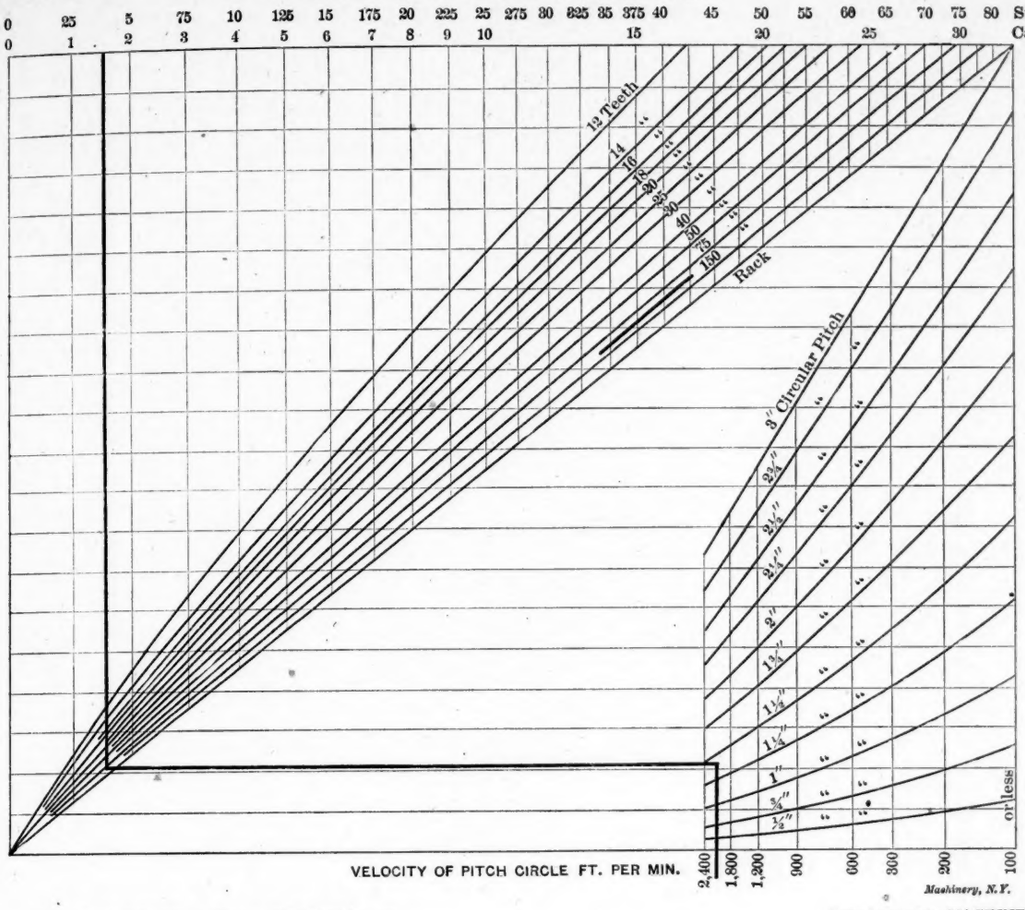
These data sheets are intended to be cut into four sections, 6 x 9 inches in size. They may then be bound into note-book form for convenient reference, by means of staples inserted in holes punched at the points indicated. A suitable binder for these data sheets will be supplied for 25 cents, which has an open back and will hold an indefinite number of 6 x 9 sheets, depending on the length of staples used.

PUNCH

CREASE HERE

PUNCH

STRENGTH OF 20-DEGREE INVOLUTE CUT TEETH. FACE = 3 × PITCH. (Lewis formula.)



Example: Taking the load of 1,579 from the previous diagram we find for a cast-iron gear running at 2,100 feet per minute that the pitch should be 1.4 inch, assuming the gear to have 90 teeth. To obtain this, locate the position of a 90-tooth diagonal and select at the top of the diagram the 1,570 point, remembering that the readings are here given in thousands of pounds. Draw a line down to the 90-tooth diagonal, then move to the right until the line intersects a vertical from the 2,100 point. This locates the line denoting the pitch, which is about 1.4. Three times the pitch gives 4.2 inches for the width of face.

Contributed by Ch. J. Steen, Philadelphia, Pa.

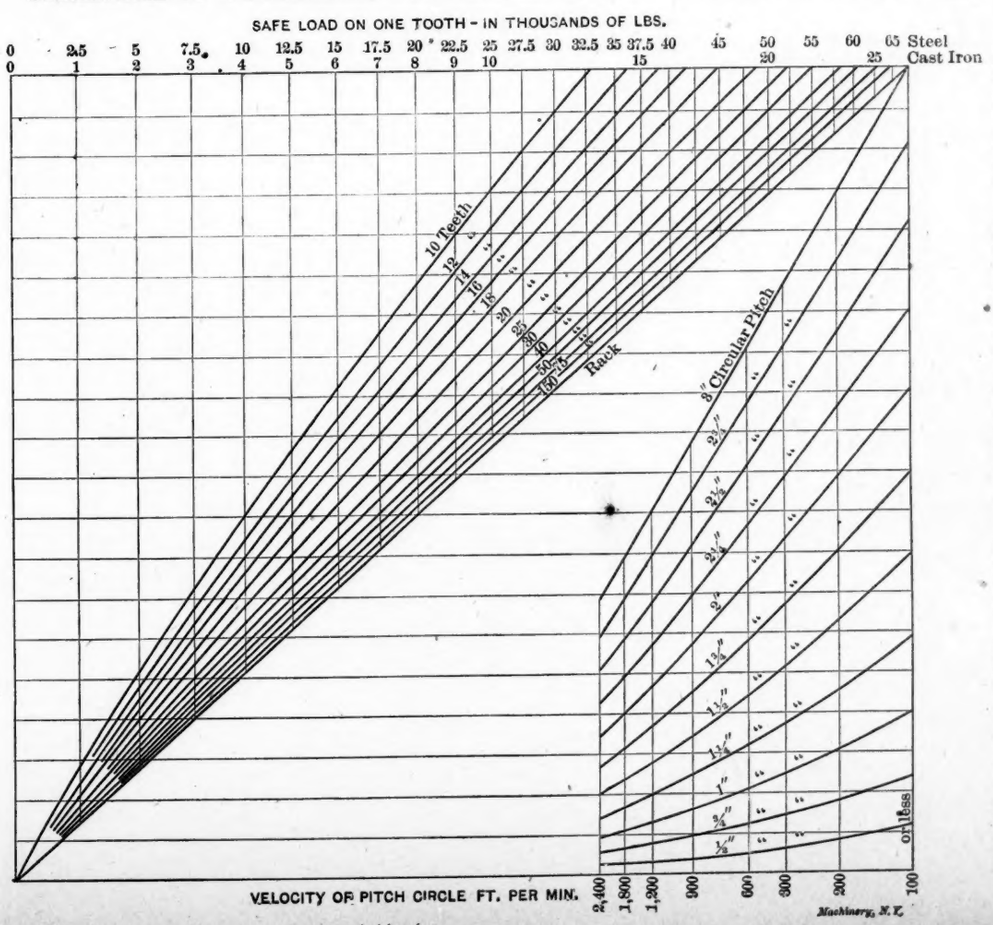
Supplement to MACHINERY, February, 1905.

PUNCH

CREASE HERE

PUNCH

STRENGTH OF CYCLOIDAL CUT TEETH. FACE = 3 × PITCH. (Lewis formula.)



This diagram is similar to the previous one giving the strength for involute teeth, and is used in the same way as explained for that diagram.

Contributed by Ch. J. Steen, Philadelphia, Pa.

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